

catory orifice. The arrows define the position and the boundaries of the breathing-chamber.

Fig. 6. *Planorbis corneus*, Lamk., taken out of its shell. *a*, respiratory siphon; *b*, space embracing the mantle; *c*, outline of pulmonary chamber; *d, d*, abdominal segment of the body.

Fig. 7. Plan of branchial chamber of *Sepia officinalis*. *a*, expiratory siphon; *b*. and arrows, inspiratory fissure; *c*, bottom of the branchial cavity; *d*, plan of the hollow cones of the branchiæ; *e*, the open hollow bases of the branchiæ by which the water enters the interior of the organ.

[To be continued.]

XXX.—*Notice and Description of a New Species of Spider.* By the Rev. HAMLET CLARK, M.A., Curate of All Saints, Northampton.

To the Editors of the *Annals of Natural History.*

GENTLEMEN,

Northampton, Oct. 16, 1855.

MR. BLACKWALL has for many years selected your Magazine as the medium for communicating to the public his many discoveries in British arachnology; this is my reason for applying for admission into the same pages of an additional species which appears to be new to our lists.

I am, Gentlemen, faithfully yours,

HAMLET CLARK.

Salticus Blackwallii.

Length 4 lines; length of cephalothorax $1\frac{1}{3}$; greatest breadth 1; length of posterior legs $2\frac{3}{4}$; of second pair $2\frac{1}{4}$.

Legs, especially the anterior pair, robust, setaceous; on the inferior surface of tibiæ and metatarsi of first and second pairs two rows of sessile spines; legs ochraceous, on the upper surfaces an irregular row of black spots; the fourth pair is longest; the second pair slightly shorter than the third. *Tarsi* terminated by two black curved claws. *Palpi* ochraceous. *Cephalothorax* large, convex, somewhat quadrate, rounded at the sides and base, slightly pubescent; the anterior part, where the eyes are seated, black; the sides and posterior part ochraceous, with black spots and radiating irregular lines converging to the centre; lateral and posterior margins narrow and black; frontal margin clothed with longish yellow hairs. *Falces* short, vertical, subconical, marked with a short black streak on the outer side. *Maxilla* straight, short, enlarged and rounded at the extremity, marked with dark spots on the inner margin. *Lip* oval, base and

sides black. *Sternum* oval, narrower at anterior than at posterior extremity, ochraceous, with broad black margin. *Abdomen* elongate, oval, slightly pubescent, pale dull ochraceous, with numerous blackish short lines or spots; on the sides these spots range themselves in longitudinal lines; on each side of the upper medial line is a broad longitudinal band composed of confluent black spots, approximating to each other towards each extremity, where they meet; the spots on the under surface are fewer and more minute; down the medial line extends a narrow band composed of more distinct spots, some of which are confluent. *Sexual organs* black. *Branchial opercula* pale yellow.

I found a single adult female of this large and handsome species at Southport, Lancashire, during the last week of September; it was sunning itself on a gate close to the shore on the south side of the town: it appears to be new to science. The name by which I have designated it will commend itself to all your readers. My esteemed relative and friend Mr. Blackwall has for many years devoted himself to the study of this Order, and the result of his unassisted labours is simply this:—twenty-five years ago I suppose from forty to fifty species were all that were known as recorded indigenous representatives of this Order; we can now boast of a catalogue comprising TWO HUNDRED AND FORTY-SEVEN. I rejoice to find that others are actively following where he has so long led; for there is little doubt but that this our present list, however in itself creditable to science and honourable to him, will be still further increased.

XXXI.—*Observations on the Habits of the Stickleback* (being a continuation of a previous paper). By ROBERT WARINGTON, Esq.

DURING the early part of the last summer I had the good fortune to observe the whole progress of the various stages in the breeding of the Three-spined Stickleback, *Gasterosteus leivurus*, which will therefore enable me to complete the notice already published on this subject in the 'Annals and Magazine of Natural History' for October 1852.

In the account there given, the observations extended to the completion of the nest by the male fish, and it is my intention in the present communication to carry on the details of the progress from that point, premising that the water was the same which had been employed for the original experiments of 1849, and that the fish contained in the aquarium consisted of three Stickleback, one male and two females, two Tench, and a Goldfish.